

Wildlife Express

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POCKET GOPHER

Gopher photo CCBY Flickr Creative Commons

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Pocket Gophers

You may have heard of pocket gophers, but have you seen one? Pocket gophers are fossorial (fa-SOHR-ee-uhl) animals. Fossorial means adapted to digging and burrowing. Pocket gophers spend more time underground than they do above ground.

Three kinds of pocket gophers live in Idaho. They are the Townsend's, northern and Idaho. Townsend's pocket gophers are the largest. They are found in southwestern and south-central Idaho. Northern pocket gophers are found across most of Idaho. Idaho pocket gophers are the smallest and rarest. They are found in eastern Idaho and have only been seen about ten times over the last twenty years.

Pocket gophers dig huge burrow systems. A study found that one pocket gopher might excavate as much as five tons of soil each year! With front paws the size of nickels, that's pretty amazing. Their burrow systems may be up to 500 feet long. If stretched out in a single line, that would be the length of one and one-half football fields!

Burrow systems have an upstairs and downstairs. Upstairs is the grocery store. Pocket gophers eat roots, tubers and other parts of plants. They sometimes come to the surface of the ground where they dart out and grab plants.

They may also dig a tunnel about six to eight inches below the ground and pull plants into their tunnel. Pocket gophers' lips close behind their front teeth, so they don't have to worry about getting a mouthful of dirt. To carry plants around their tunnels, they have fur-lined pouches on the sides of their faces. They shove plants in the pockets and carry them downstairs. The downstairs part of the burrow is about six feet below the surface of the ground. Downstairs contains the pantry, sleeping chambers and nesting chambers.

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HOW DO YOU KNOW

a pocket gopher is living underfoot?

Look for piles of dirt or winding, dirt lines.

Unless a pocket gopher is actively using a burrow entrance, most are sealed closed. Pocket gophers push dirt out of the burrow and to one side. When finished with the entrance, the hole is plugged with a dirt cap. Plugging the burrow helps keep pocket gophers safe from birds of prey, foxes, coyotes and other predators. The dirt lines or ridges are formed during the winter. Pocket gophers are active all year; they don't hibernate. During the winter, they burrow into the snow at the ground's surface looking for

food. This winter burrowing causes ridges of winding dirt on the surface of the ground.

Pocket gophers have bodies made for digging and slipping through burrows. Their bodies are tube-shaped with short legs and short tails. They have small eyes, and small ears partially covered with fur keep the dirt out. Long claws help them dig, and toes lined with stiff hairs help push dirt. Short, velvety fur allows them to move easily forward and backward in cramped tunnels. Long fur would stick up when moving backward and slow down pocket gophers running from danger.

Sometimes pocket gophers cause problems for people. They might destroy farmers' fields or tear up a golf course. However, they also are beneficial. Research shows their digging can help soils hold onto water and allows water to seep into underground aquifers. They loosen soils helping plants grow. There are also over 20 different animals that use pocket gopher burrows for shelter or for raising a family.

Look for pocket gophers while out exploring Idaho. If you are lucky enough to see one, you are sure to be entertained by their busy burrowing.



The Rodent Family

A rodent is a mammal whose front teeth never stop growing. Pocket gophers, squirrels, mice, and porcupines are all rodents. Most rodents eat plants, but some rodents are predators. They may eat insects or other small animals. There are more rodents in the world than any other type of mammal. Idaho has over 40 different kinds of rodents.

Idaho's largest rodent is the beaver. The largest rodent in the world is the capybara (kap-ee-BAR-ah). It is about the size of a pig. Capybara can weigh more than 125 pounds and be four feet long! They are naturally found in South America, but some have been brought into the United States. One of the smallest rodents is the pygmy mouse of Africa. It weighs about as much as an unsharpened pencil and is only two inches long.

Because their front teeth never stop growing, rodents need to chew on tough things to keep their teeth from growing too long. If they didn't chew to keep their teeth short, their teeth may actually circle around and grow into their skulls!

If you have a pet rodent like a mouse, hamster or guinea pig, you may have noticed that your pet's front teeth are a yellow-orange color. The teeth are only orange on the outside. Believe it or not, these teeth are supposed to be orange. The orange color is special enamel that helps to make their teeth strong and hard. Imagine cutting down trees like beavers. Wouldn't you want strong teeth? The orange enamel also helps to keep their teeth sharp. The hard, outside of the teeth wears down more slowly than the softer inside. This keeps their teeth chisel sharp.

Some rodents may be seen as pests, but they are important parts of ecosystems. They are links in food chains. Many animals depend on rodents for food. In some parts of the world, even people eat rodents.



Skull Clues

You're walking along a trail. All of the sudden, you see something grayish-white peeking out of the grass. Leaning forward you realize what it is – a skull. Now the mystery really begins. What animal did that skull belong to, and how did this animal live its life?

This may be a hard question to answer, but the skull will give you some clues. One of the best clues you have are the teeth. Teeth tell you what an animal eats. Animals that eat meat need teeth that will help them cut and tear. Meat eaters, called carnivores, have meat cutting teeth along their cheeks. These teeth are sharp and pointed. When the top teeth and the bottom teeth come together, the teeth pass each other like scissors. A carnivore, like a mountain lion, has no problem slicing through an animal with its teeth!

Sharp pointed teeth may work well for meat eaters, but they sure wouldn't help plant eaters. Plant eaters are called herbivores. Plants take a lot of chewing to break down. Just think how long you need to chew celery! Herbivores have tall teeth with flat tops in the back of their mouths. Flat teeth let the animals slide their top and bottom teeth against each other. Pocket gophers need teeth like these to grind up the roots and plants they like to eat.

We have teeth in the back of our mouths with low bumpy crowns, so do bears. Teeth with this shape belong to omnivores. Omnivores eat both meat and plants, so they need teeth that help cut and grind.

The joint between the skull and jaw may also help you tell if the animal ate meat or plants.



Photo CCBY by Daniel Dvorski, Unsplash

Many rodents have a small ball on the end of the jaw that fits in a half circle on the skull. It is similar to the joint of your hip or shoulder. This joint allows herbivores to make circles to grind their food. Carnivores and omnivores tend to have joints with straight lines.

The location of the eye sockets on the skull can also tell you a lot. Predators, animals that eat other animals, need to be able to tell distances. This comes in handy when reaching out to grab a mouse. Predators have eyes that face forward. Prey animals, animals that are eaten by other animals, have their eyes located more to the sides of their heads. This lets them look out for danger in almost every direction, without ever moving their heads.

These clues may not tell you what animal the skull came from, but it is a start. You will have an idea of what the animal ate, and whether it was a predator or prey animal.

Food Chains & Webs

Have you ever heard the saying, “one thing leads to another?” This sure is true with food chains. Food chains are formed when one animal eats a plant, and then another animal eats it. Each plant or animal is one link in the chain.

Living things need energy in order to survive. Plants get energy from the sun. Animals get energy by eating plants or other animals. Energy is passed along as animals eat. A food chain is the order of who eats what or whom to get the energy and nutrition needed to survive.

Some links are easy to see. Almost all food chains start with the sun. Plants, like saltgrass, use energy from the sun to make the sugar and food needed to grow. A pocket gopher eats the saltgrass and uses the energy stored in the plant. A coyote then eats the pocket gopher, and the energy in the pocket gopher is passed to the coyote. Sun links to saltgrass, which links to pocket gopher, which links to coyote.

Other links may be more difficult to see. Do you think there could be a food chain in a mud puddle? Sure! Seeds blow into a puddle and grow into tiny plants. A mosquito lays eggs in the puddle that hatch into larvae. They eat the tiny plants. Sun links to plant which links to mosquito larvae; this is a food chain.

Sometimes things other than just energy and nutrients pass from one animal to the next. Chemicals used to kill certain plants have been found in birds. How did the poison get into their bodies when they didn't eat the plants



the poison was sprayed on? The answer can be found by following the food chain. Mice swallowed the poison when eating the plants. The poison does not leave the bodies of the mice. When the birds ate the mice, they also ate the poison that was in the mice.

Have you ever heard of a food web? Food webs are made up of food chains that are linked together. Food webs help show us how plants and animals are connected in nature. No matter how different and separate plants and animals may seem, their food chains connect them in some way. Would you think that a salamander would be connected to a wolf? It may be hard to see this connection, but it is there. Wolves eat moose, and moose eat cattails. Salamanders eat aquatic insects that eat cattails. Salamanders and wolves are connected in the food web by cattails. If the cattails around a pond are removed, both the wolves and salamanders might be affected.

Everything in nature is connected in some way. Food chains and webs help us see those connections. Do you think you might be connected to pocket gophers? Think of different food chains and webs to see if you can find a connection.





Let Them Be

Fawn Photo CCBY by Jax, Unsplash | Daisy by Daiga Ellaby, Unsplash

Spring is a time for renewal. It's a time to get out of the house and explore all the wonders of nature. Walks, bike rides and fishing trips may take us closer to wildlife. You may see baby animals. It's a true sign that spring has arrived.

When you hear people talking about enjoying animals, remember it is especially important that we leave animals alone. Let them do the things they need to do to survive. Getting too close to wild animals might stress them and cause them to die.

As humans, we have an urge to take care of things we think are helpless, especially “cute” animals, like young deer or rabbits. If you see a baby animal, don't assume it has been abandoned by its mother. Most of the time, this isn't the case. Mothers often leave their young hidden while they go away to eat. If the mother stayed close to her baby, she could actually draw the attention of a predator. You may have scared the mother away. She will return once “danger” has passed.



Springtime fun!

Yay, spring is here! The days are slowly getting longer. You can leave your hat and mittens at home because it's starting to get warmer outside. Spring Break is right around the corner. Now is the time to shake off the winter blahs and spend more time outside. Being outside is so much fun because you can see and do so many things. The world is waking up from its long winter nap. Get outside and see what is happening all around your neighborhood. Here are some fun things to do this spring to enjoy the outdoors:

Climb a tree | **Ride your bike**

Look for early flowers like daffodils, tulips and dandelions

Check your garden to see if plants are coming up

Have a picnic on the first warm day

Listen for the first bird songs of spring

Watch the clouds | **Check trees for swelling buds & new leaves**

Play an outdoor game with your friends | **Go fishing**

Take a walk in the spring rain

Use a stethoscope or small glass to listen for the sap rising in cottonwood trees

Listen for frogs singing in a local pond

Stay outside after dark and look at the stars

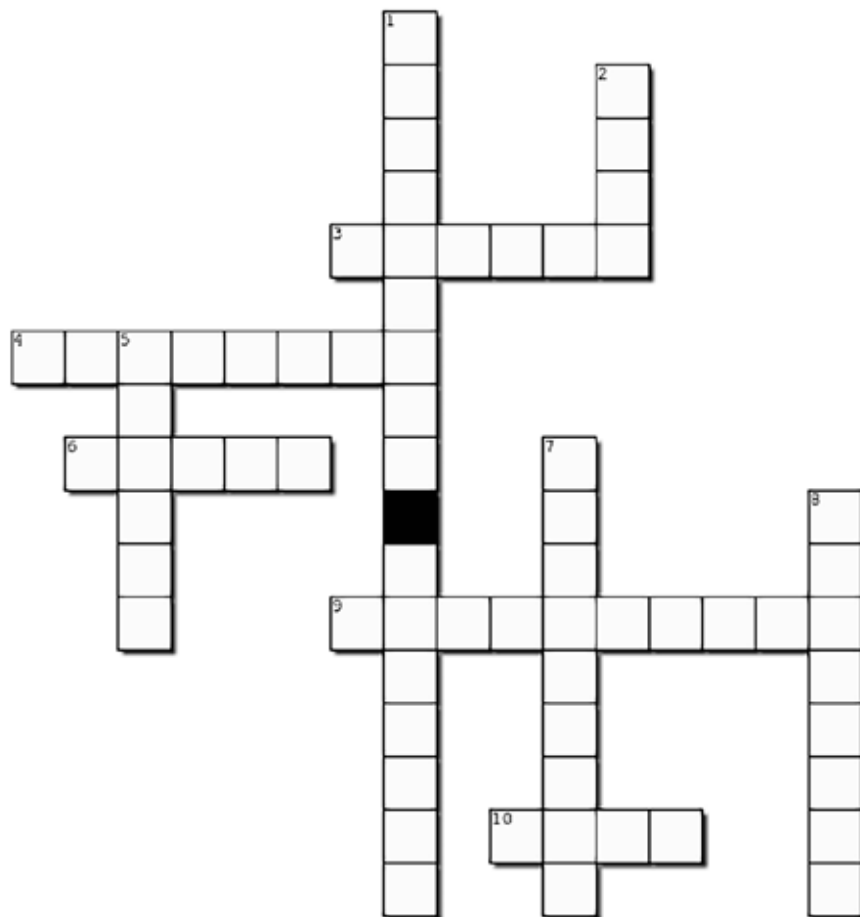
Build a fort | **Read under a tree** | **Play catch**

Photo CCBY by James Wheeler, Unsplash



Pocket Gopher

Puzzler



Created using the Crossword Maker on TheTeachersCorner.net

fossorial northern lips fur-lined pouches Idaho upstairs rodent Townsend's ears
plants

Across

3. Pocket gophers eat these.
4. This pocket gopher is found across most of Idaho.
6. This is Idaho's smallest pocket gopher.
9. This is Idaho's largest pocket gopher.
10. These are partially covered with fur to help keep the dirt out.

Down

1. Pocket gophers carry plants in these.
2. These close behind pocket gophers' front teeth.
5. Pocket gophers are members of this family.
7. This means adapted to digging and burrowing.
8. Pocket gopher burrows have an _____ and downstairs.

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WE WOULD LIKE TO HEAR FROM YOU!

If you have a letter, poem or question for Wildlife Express, it may be included in a future issue! Send it to:

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